

quan, Prince Wm. Co., Virginia (U.S.N.M. No. 484806) has been recently examined anatomically. The verge of *C. virginicus* is identical with that of *C. clappi*.

Clappia therefore includes *C. clappi* from the Coosa River, *C. virginica* from the Potomac drainage, and *C. tryoni*, which ranges as far north as the headwaters of the Wisconsin River.¹¹ Further knowledge of the range of the genus must await critical examination of other species at present included in *Somatogyrus*.

LAND MOLLUSCS COLLECTED AT HEBRON, LABRADOR, AND LAKE HARBOUR, SOUTH BAFFIN ISLAND

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The land and freshwater molluscs of the eastern Arctic of Canada are poorly known. A few collections have been made at Ungava Bay, Labrador, and examined by Dall or Whiteaves. Dall (1905) presented all that has been recorded to date on the subject. Altogether, in his treatise, there are mentioned 13 species and one doubtful occurrence (*Vertigo hoppii* Möller) for Ungava Bay, Labrador, and two species for Labrador without more detailed locality, and finally *Gyraulus vermicularis* Gould is listed for Labrador in his table, but is omitted in the text.

In the present paper, five species of land molluscs are recorded. No freshwater species were found at all. There appears to be a much greater variety of non-marine molluscs in Ungava. This may be attributed perhaps to climatic differences, as the Ungava collections came from a sparsely forested or sub-Arctic region. In contrast, the specimens herein described came from the treeless regions or the Arctic proper. The species found at Lake Harbour constitute, I believe, the first record of any non-marine molluscs from Baffin Island. The localities in question are:

Hebron, northern Labrador. Lat. 58° 20' N., long. 62° 30' W., roughly 200 miles east of Fort Chimo, Ungava Bay.

Lake Harbour, southern Baffin Island. Lat. 62° 50' N., long. 69° 52' W.

¹¹ Morrison, Trans. Wis. Acad. Sci. 27: 369, 1932.

Dr. H. A. Pilsbry has very kindly examined a sample and has corroborated the determinations.

Columella alticola (Ingersoll). Small var? While this is a rather surprising record, yet my specimens are distinctly more cylindrical than any North American or European lots of *C. edentula* which I have seen. Whorls 6 to $6\frac{3}{4}$; dimensions of the largest shells (=mature): length 2.4–3.0 mm., average 2.6; diameter 1.1–1.3 mm., average 1.2; colour cinnamon brown which is often obscured by opaque white. In some shells, the surface striae are much reduced. "While your shells have the shape of *C. alticola*, they are smaller and I am rather uncertain whether it is *alticola* or a narrow race of *edentula* such as some which have been defined in Europe." H. A. P.

Hebron: none. Lake Harbour: about 200 shells from a boggy upland flat; in crevices at edge of temporary stream; under rocks beside a small brook.

Vertigo alpestris Alder var. This is the first or second record of this species for the continent. Whorls $4\frac{1}{4}$ to $4\frac{3}{4}$; length 1.8 to 2.2 mm., average 2.0; diameter 1.1 to 1.2 mm., average 1.2; colour light buff to amber brown; the striae usually faint, teeth variable, mostly having but one tooth (a parietal) or a parietal and palatal; no crest behind the lip. The aperture of these specimens varies somewhat in size. The Lake Harbour specimens resemble very closely the single European lot at hand from Boros, Sweden, in the character of the lip, but differ in having a darker brown colour, less distinct striation and much more reduced teeth.

Hebron: none. Lake Harbour: 2 lots containing 217 adults from a boggy upland flat where it was associated with *Vertigo modesta* (Say) and *Columella alticola* (Ingersoll). This bog is probably a filled-in lake basin, at one end of which a small body of water remains.

Vertigo arctica (Wallenb.) Whorls $4\frac{3}{4}$ to 5; length 2.2 to 2.4 mm., average 2.3; diameter 1.3 to 1.4, average 1.3; crest behind lip very slight, less than that of *modesta* Say; in most cases the teeth are 1 columellar, 1 parietal and 0 or 1 palatal; palatal tooth when present very small.

Hebron: none. Lake Harbour: a single colony of 133 specimens, of which 75 were adults, was found at the edge of a temporary pond in the hills, associated with no other snails.

I interpret this one colony of *Vertigos* to represent this puzzling boreal species, as no individual in the lot possessed two palatal teeth. Otherwise, there is little to distinguish it from *V. modesta* Say of the same region. A three-toothed shell of *arctica* differs from a three-toothed *modesta* of the same locality in two particulars, (1) noticeably in the much smaller lower palatal tooth and (2) slightly in a smaller crest behind the lip. This second feature is admittedly a minute difference and is not constant. It was observed that even four-toothed shells of *modesta* seemed to have a more pronounced crest than three-toothed shells of the same species. As far as I could see, the shells of *V. arctica* and *V. modesta* at Lake Harbour were identical in colour, size, shape and degree of striation. By North American standards, *arctica* probably would not be ranked higher than a *form* or *variety*. The *modesta* group would make an interesting study, as these snails often may form colonies of one strain, more or less pure.

Vertigo modesta Say vars. Whorls $4\frac{3}{4}$ to 5; length 2.1 to 2.5 mm., average 2.3; diameter 1.2 to 1.4; average 1.3; teeth chiefly 1 columellar, 1 parietal and either 1 or 2 palatals. This species was readily distinguished from *V. alpestris* which was associated with it in the boggy flat by the greater length and diameter, more ventricose shape, larger and more numerous teeth as well as the presence of a crest behind the lip.

Hebron: 2 lots, 14 adult shells, of which 7 had no teeth at all; under stones on tundra, under stones at edge of small lake. Lake Harbour: 4 lots, 103 adults; in crannies at edge of small brook, in crevices beside temporary creek and pond, in boggy upland flat.

While speaking of boreal *Vertigos*, it is not amiss to notice that Latchford (1884) recorded "*Vertigo hoppii* (Möller) from Anticosti Island. His collection is now in the possession of the Royal Ontario Museum of Zoology. It contains 2 shells labelled *hoppii* from Anticosti which probably formed the basis for his record. One shell is a typical *V. modesta* (Say). The other, although it differs from typical *alpestris* in possessing a slight crest behind the lip, has the shape and size of that species. Like many of the Baffin Island specimens of *alpestris*, the Anticosti shell has two teeth—one parietal and one palatal.

Deroceras laeve (Müller). Length of drowned specimens up to 12.5 mm. This is, I presume, the same slug that Dall recorded from Fort Chimo as "*Limax hyperboreus* West."

Hebron: 6 specimens, under stones at edge of small lake, under stones on tundra. Field notes indicate that these were "a dull dark brown: no pattern visible." Lake Harbour: 2 specimens, under rocks beside a brook. Slugs are apparently rare in this region, as I found none associated with pupillids at three other stations.

I am indebted to Messrs. Calvin Goodrich and Henry Van der Schalie of Ann Arbor and S. T. Brooks of Pittsburgh for favours shown me.

Variations in the apertural teeth of *Vertigos* collected at Hebron and Lake Harbour

Number of specimens			Teeth		
<i>alpestris</i>	<i>modesta</i>	<i>arctica</i>	col.	par.	pal.
7	7	0	0	0	0
94	0	0	0	1	0
2	0	0	0	0	1
6	0	43	1	1	0
87	0	0	0	1	1
0	1	1	1	0	1
5	0	0	0	1	2
1	0	0	0	2	1
15	54	31	1	1	1
0	54	0	1	1	2
0	1	0	1	2	2
Total			217	117	75

Remarks

1. The collections were made during a voyage on the R. M. S. "Nascopie" in 1939, on the following dates:

Hebron, July 17 and 18.

Lake Harbour, July 24 to Aug. 15.

2. I did not find any freshwater molluscs at any part of my trip, although I searched ponds, lakes and streams for them. They are apparently rare or local, if they are present at all on Baffin Island. Mr. John G. Cormack, who had been stationed at

Frobisher Bay, south-eastern Baffin Island, as manager for the Hudson Bay Company, informed me that he had seen fresh-water snails in that vicinity.

3. I did not find any terrestrial species at Port Burwell (Cape Chidley) just off the northeastern tip of Labrador, or any of the more northerly ports of call, viz., Fort Ross, the most northerly tip of Boothia peninsula; Craig Harbour, south-east corner of Ellesmere Island; and Arctic Bay, Pond Inlet, River Clyde, Panguirtung, all on the northern and eastern coasts of Baffin Island. The few ground samples I took from these northern localities yielded no shells. However, the short period permitted ashore, combined with snow, in some cases, prevented an exhaustive search.

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FURTHER NOTES ON LAND SHELLS FROM KODIAK AND NEARBY ISLANDS

BY WALTER J. EYERDAM

On June 1st of this year, I returned from a 25,000-mile excursion to South America, collecting plants for the University of California at Berkeley. This journey covered parts of twelve Latin republics, including about 12,000 miles of travel in the Gran Chaco and Patagonia. Only twelve days after arriving at my home in Seattle, I was on my way to Alaska again, where I spent three and a half months.

While collecting plants in the Kodiak islands, I managed to make a few more locality records. At Alitak, on the S.W. coast of Kodiak, I found, in abundance under wild rhubarb, fine specimens of *Succinea chrysis* Westerlund. Under broad leaves at the base of the stalks of three plants were found about 200 specimens. *Discus cronkhitei* Newcomb and *Vitrina alaskana* Dall were also quite common.